



## **NORTH CAROLINA** Department of Transportation



# C203929 (I-5765)

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2018 NCDOT / AGC Workshop

# Project Overview

- Project Length: 6.357 miles
- Location: I-40 (Davie County) from Mile Marker 169.14 to Mile Marker 175.39
- Scope of Work: Concrete Patching, Full Depth Shoulder Repair, Latex Overlay, Complete Asphalt Overlay



# Project Challenges

- High volume and high speed traffic on I-40
- Long straight tangent sections of highway
- Area known for hydroplaning
- ICT For Farmington Road (New Davie County High School Grand Opening)



# Project Challenges Continued





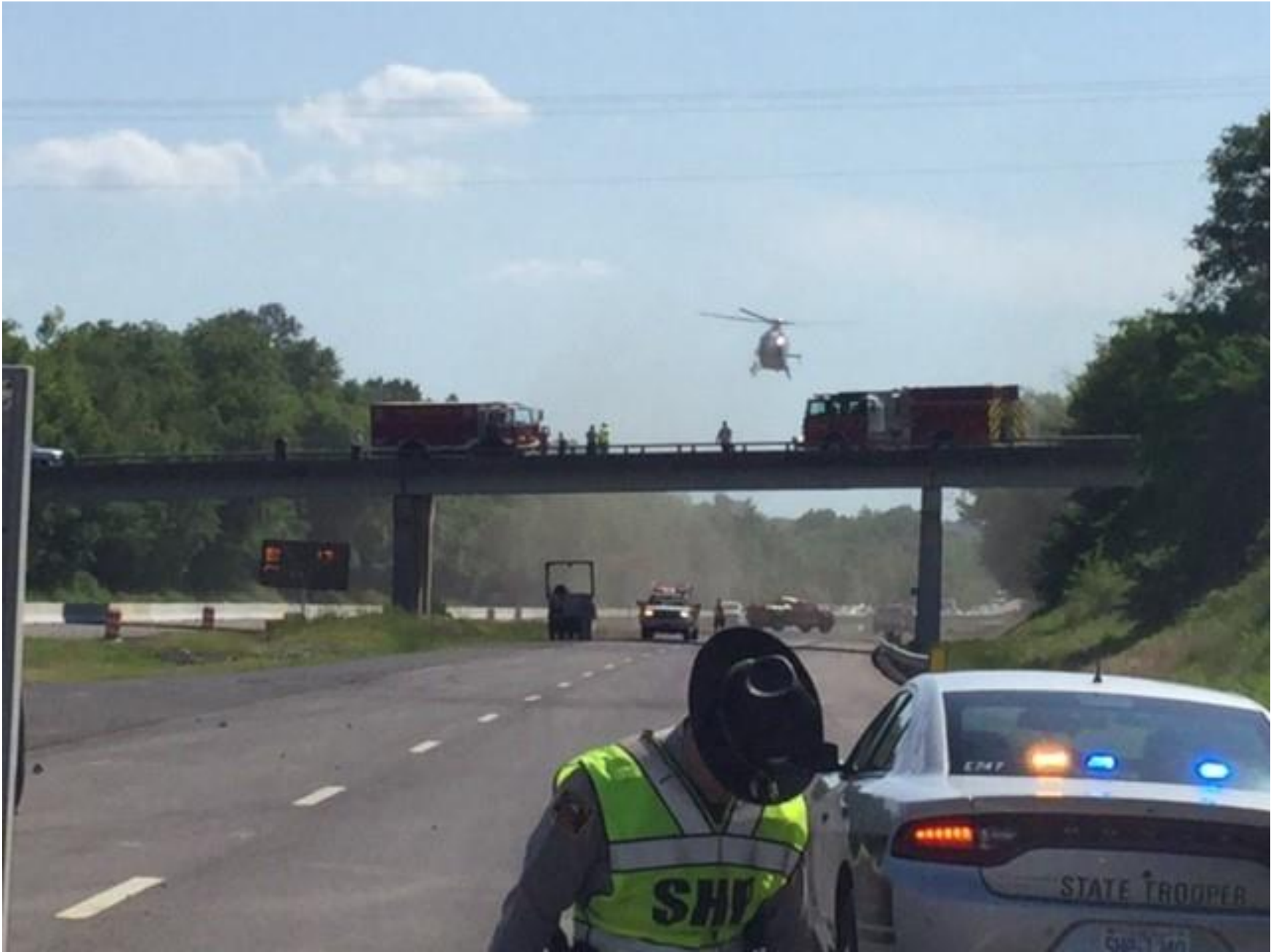












# Traffic Control Aids

- Smart Work Zone
- Extra Message Boards at department's expense
- Overhead Message board coordination with TMC
- Law Enforcement (HAWKS)



# Segment 1

- Work began on 3-19-17 (two weeks early)
- Work began with full depth shoulder milling/repair, shoulder drain installation and removal and reinstallation of guardrail.
- Plans called for 4ft. Median and 10ft. Right Shoulder
- We installed 7ft. Median and 7ft. Right Shoulder.
- This allowed for more working room with upcoming traffic shifts.

# Full Depth Shoulder





# Segment 1 Continued

- ICT 3 required Farmington Road Interchange open prior to 8-14-17. If the ICT was met, the contractor would receive an incentive (ie. Bonus)
- Segment 1 crossovers CD & EF began on 3-27-17
- While crossovers CD & EF were being built, crews continued to perform work simultaneously on full depth shoulder repair, shoulder drain installation and remove & reset guardrail (ie. Multitasking) in the WB lanes utilizing single lane closures.
- This gave us a head start on the required work in the WB direction.

# Crossovers CD & EF





## Segment 1 Continued

- Crossover CD & EF with concrete barrier wall installation was completed and WB traffic was switched to the EB lanes on 4-20-17. (Approximately 4 weeks after construction began.)

# Crossover / Concrete Barrier Wall





## Segment 1 Continued

- Crews were nearing completion of the required work in segment 1 WB lanes on 6-4-17, so traffic was taken out of the head to head pattern by removing the barrier wall.
- Crews utilized single lane closures to finish up the remaining work in the WB direction by 6-9-17.
- From 6-4-17 – 6-9-17, crews were reconfiguring the concrete barrier wall in the crossover to allow for traffic to be switched from EB to WB lanes.

## Segment 1 continued

- On 6-9-17, segment 1 WB direction work was complete along with the reconfiguration of the concrete barrier wall. This allowed crews to switch EB traffic to the WB lanes in a head to head pattern.
- With traffic switched to a head to head pattern, crews shut down EB on / off ramps to Farmington Road which allowed them to begin construction operations in the EB lanes of segment 1.



# Segment 1 complete

- Crews actively pursued the work in segment 1 in order to meet the 8-14-17 ICT.
- Crews completed ICT 3 on 8-7-17 (1 week early)

## Segment 2

- Preliminary discussions with the engineering staff considered eliminating crossover AB which would have required segment 2 to be constructed under single lane closures.
- Project Inspector and Project Superintendent highly advised that crossover AB be constructed so segments 2 could be built using the same method as segment 1.



## Segment 2 Continued

- Required work: Full Depth Shoulder Repair, Extensive Concrete Patching, Hydro Demo / Latex Overlay on Bridge # 61, 62, & 74, 75

## Segment 2 Continued





## Segment 2 Continued





# Remaining Work

- Segment 2 is substantially complete using the same method and procedures as segment 1
- Remaining work to be completed is essentially segment 3 and an 1.5" overlay throughout the entire project.
- Percent complete to date: 80%
- Percent Complete by progress chart: 47%
- Project is 33% ahead of schedule



# Communication

- TMC
- STOC
- Maintenance
- IMAP
- Pavement Management
- Work Zone Safety
- Area Engineers
- SHP and Hawks
- Surrounding Businesses
- Media
- Contractor

# Contractor Comments

- Work zone safety is our number one priority
- Assisted in clearing accidents from the work zone
- Understood schedule urgency
- Requested “pre” preconstruction meeting to discuss concerns and ideas prior to award
- Subcontractor coordination very critical
- Work continues